A

Accident: automobile, ECG after, Aug. 566
Adenosine
  physiologic effects, July 504–505
  side effects of, July 510–511
  thallium-201 scintigraphy, limitations of, July 512
Adrenergic activity in mitral valve prolapse syndrome (*see under* Mitral valve prolapse syndrome)
β-Adrenergic blockers: in myocardial infarction, Sept. 596–608
AIDS: heart involvement in, June 389–391
Aneurysm(s)
  aortic
    CT of, Dec. 810–812
    MRI in, Mar. 159–160
  mycotic, CT of, Dec. 812
Angina
  cocaine causing, ECG in, Feb. 98
  patients free of, after coronary angioplasty, July 479
Angiography
  exercise radionuclide, July 471–475
  in Kawasaki disease, June 393
  radionuclide, July 482–483
    of ventricle, right, Oct. 683–686
Angioplasty
  coronary
    patients free of angina after, July 479
    percutaneous transluminal, July 481
  myocardial perfusion imaging after, July 475
Angiotensin-converting enzyme inhibitors
  after myocardial infarction, Sept. 633–636
  recommendations, Sept. 636
Anomalies
  of aorta, congenital, MRI of, Mar. 160–162
  of aortic arch, congenital, MRI of, Mar. 160–162
  Ebstein's, CT of, Dec. 821
  venous connections, MRI of, Mar. 179–181
Anthropometric measurements, May 334
Antiarrhythmic therapy
  after myocardial infarction, Sept. 625–631
  recommendations, Sept. 631
  results with, Sept. 626
Antibody(ies)
  -dependent cytotoxicity and immune injury, June 385
  myosin-specific, for infarct-avid imaging, July 500–504
Anticoagulant therapy
  after myocardial infarction, Sept. 621–625
  recommendations, Sept. 625
  results, Sept. 622
Antimyosin scintigraphy, July 502
Antiplatelet therapy
  after myocardial infarction, Sept. 617–621
  recommendations, Sept. 621
Aorta
  anomalies, congenital, MRI of, Mar. 160–162
  coarctation (*see* Coarctation of aorta)
  postoperative evaluation with MRI, Mar. 163–164
  thoracic, CT of, Dec. 792, 810–816
Aortic
  aneurysms (*see* Aneurysms, aortic)
  arch, anomalies, congenital, MRI of, Mar. 160–162
  congenital lesions, CT of, Dec. 815
  disease, MRI in, Mar. 155–165

A

Accident: automobile, ECG after, Aug. 566
Adenosine
  physiologic effects, July 504–505
  side effects of, July 510–511
  thallium-201 scintigraphy, limitations of, July 512
Adrenergic activity in mitral valve prolapse syndrome (*see under* Mitral valve prolapse syndrome)
β-Adrenergic blockers: in myocardial infarction, Sept. 596–608
AIDS: heart involvement in, June 389–391
Aneurysm(s)
  aortic
    CT of, Dec. 810–812
    MRI in, Mar. 159–160
  mycotic, CT of, Dec. 812
Angina
  cocaine causing, ECG in, Feb. 98
  patients free of, after coronary angioplasty, July 479
Angiography
  exercise radionuclide, July 471–475
  in Kawasaki disease, June 393
  radionuclide, July 482–483
    of ventricle, right, Oct. 683–686
Angioplasty
  coronary
    patients free of angina after, July 479
    percutaneous transluminal, July 481
  myocardial perfusion imaging after, July 475
Angiotensin-converting enzyme inhibitors
  after myocardial infarction, Sept. 633–636
  recommendations, Sept. 636
Anomalies
  of aorta, congenital, MRI of, Mar. 160–162
  of aortic arch, congenital, MRI of, Mar. 160–162
  Ebstein's, CT of, Dec. 821
  venous connections, MRI of, Mar. 179–181
Anthropometric measurements, May 334
Antiarrhythmic therapy
  after myocardial infarction, Sept. 625–631
  recommendations, Sept. 631
  results with, Sept. 626
Antibody(ies)
  -dependent cytotoxicity and immune injury, June 385
  myosin-specific, for infarct-avid imaging, July 500–504
Anticoagulant therapy
  after myocardial infarction, Sept. 621–625
  recommendations, Sept. 625
  results, Sept. 622
Antimyosin scintigraphy, July 502
Antiplatelet therapy
  after myocardial infarction, Sept. 617–621
  recommendations, Sept. 621
Aorta
  anomalies, congenital, MRI of, Mar. 160–162
  coarctation (*see* Coarctation of aorta)
  postoperative evaluation with MRI, Mar. 163–164
  thoracic, CT of, Dec. 792, 810–816
Aortic
  aneurysms (*see* Aneurysms, aortic)
  arch, anomalies, congenital, MRI of, Mar. 160–162
  congenital lesions, CT of, Dec. 815
  disease, MRI in, Mar. 155–165

dissection
acute, CT in, Dec. 824
CT of, Dec. 812–815
MRI in, Mar. 156–159
type III, Mar. 157
endocarditis (*see* Endocarditis, aortic valve)
pseudoaneurysm, MRI of, Mar. 164
regurgitation, CT of, Dec. 807–808
regurgitation, mild to moderate, Jan. 22–24
cardiac catheterization, Jan. 23
cineangiography with exercise, Jan. 22
ECG, Jan. 22
echocardiography, Jan. 22
history, Jan. 22
physical examination, Jan. 22
radiography of, chest, Jan. 22
treadmill stress test, Jan. 22
regurgitation, severe, Jan. 24–27
cardiac catheterization, Jan. 24–25
ECG, Jan. 24
echocardiography, Jan. 24
history, Jan. 24
physical examination, Jan. 24
radiography of, chest, Jan. 24
treadmill stress test in, Jan. 24
regurgitation, severe, with left ventricular dysfunction, Jan. 31–33
cardiac catheterization, Jan. 31–32
ECG in, Jan. 31
echocardiography, Jan. 31
follow-up, Jan. 32–33
history, Jan. 31
physical examination, Jan. 31
radiography of, chest, Jan. 31
regurgitation, severe, with severe symptoms, Jan. 27–31
cardiac catheterization, Jan. 28
ECG, Jan. 28
echocardiography, Jan. 28
follow-up, Jan. 28–29
history, Jan. 27–28
physical examination, Jan. 28
radiography, chest, Jan. 28
rupture due to cocaine, Feb. 109
stenosis (*see* Stenosis, aortic)
Aortocoronary bypass: CT of, Dec. 777
Arrhythmia
cocaine causing (*see* Cocaine, arrhythmia due to)
in mitral valve prolapse syndrome, May 359
sudden arrhythmic death, Sept. 631
ventricular
effect of beta blockers on, Sept. 603–605
after myocardial infarction, Nov. 735–736
after myocardial infarction, detection of, Nov. 748–749
survival, Sept. 628
Arteries
coronary (*see* Coronary artery)
pulmonary, MRI of, Mar. 181
Arteriography: coronary, in Kawasaki disease, June 394
Arthritis: rheumatoid, immune injury in, June 409–412
Arthus reaction, June 386
Artifacts: in computed tomography, ultrafast, Dec. 778
Aspirin: after myocardial infarction, results, Sept. 618
Atherosclerosis
accelerated after heart transplant, Apr. 286–290
coronary, acceleration after heart transplant, June 424–427
Atresia: tricuspid, MRI in, Mar. 182
Atrial
appendage, thrombus in, Dec. 818
fibrillation, ECG of, Jan. 45
hematoma, liquid, MRI of, Mar. 168
melanoma, MRI of, Mar. 174
myxoma, Dec. 819
natriuretic factor in mitral valve prolapse syndrome, May 354–355
overload and heart failure, Apr. 235

Atrial *(cont.)*
septal defect
CT of, Dec. 822
secundum, MRI of, Mar. 177
Automobile accident: ECG after, Aug. 566
Autonomic dysfunction in mitral valve prolapse syndrome (*see under* Mitral valve prolapse syndrome)

B

Bacterial
endocarditis, CT of, Dec. 810
infections after heart transplant, Apr. 277
Balloon
commissurotomy in mitral stenosis, Jan. 39–44
valvuloplasty of mitral valve, Jan. 43
Basophils: mediators of immediate hypersensitivity released from, June 384
Beta-adrenergic
blockers in myocardial infarction, Sept. 596–608
receptor abnormality in mitral valve prolapse syndrome, May 351–352
Beta blockers
action mechanism, Sept. 597–598
effect
on left ventricular function, Sept. 605–606
on morbidity, Sept. 598–603
on mortality, Sept. 598–603
on ventricular arrhythmia, Sept. 603–605
in heart failure, congestive, Sept. 606
mortality and, Sept. 597, 602, 607
recommendations, Sept. 608
results, Sept. 599
side effects, Sept. 606–608
Biopsy, endomyocardial
in myocarditis, active, June 428
in sarcoidosis, June 418
of transplanted heart, June 422
Blockers
beta (*see* Beta blockers)
beta-adrenergic, in myocardial infarction, Sept. 596–608
calcium channel (*see* Calcium channel blockers)
Blood
flow
coronary, in transplanted heart, Apr. 285
myocardial, PET of, July 522
myocardial, regional, July 516
pool enhancement with contrast medium, Dec. 781
pressure after cocaine, Feb. 100
Breath holding: and ultrafast CT, Dec. 777–778
Bronchogenic carcinoma: MRI of, Mar. 193
Bruce protocol stress test: after myocardial infarction, Nov. 752
Bullet embolism, Aug. 558–559
Bypass
aortocoronary, CT of, Dec. 777
calcification, CT of, Dec. 802
coronary
artery, patency, MRI of, Mar. 195
myocardial perfusion imaging after, July 475
saphenous vein, CT of, Dec. 801
CT of, Dec. 799–805
eight-level flow-mode study, Dec. 800
occluded, CT of, Dec. 802
stump, occluded, CT of, Dec. 804
time-density coordinates of, Dec. 803

C

Calcification
of bypass, CT of, Dec. 802
coronary, Dec. 795
artery, Dec. 796
Calcium channel blockers
after myocardial infarction, Sept. 608–616

recommendations for, Sept. 614–616
results with, Sept. 610
Captopril, Sept. 634
Carcinoma: bronchogenic, MRI of, Mar. 193
Cardiologists: general, vital role in heart transplant, Apr. 293–294
Cardiology, nuclear (*see* Nuclear cardiology)
Cardiomegaly
borderline, chest radiography of, Jan. 14
mild, Jan. 10
chest radiography of, Jan. 41, 55
radiography of, chest, Jan. 18, 25, 32, 46, 70
Cardiomyopathy
hypertrophic, MRI in, Mar. 194
MRI of, Mar. 193–195
Cardiovascular
complications of cocaine, Feb. 95–123
disease of connective tissue origin, May 330
magnetic resonance imaging (*see* Magnetic resonance imaging, cardiovascular)
spectroscopy (*see* Spectroscopy, magnetic resonance, cardiovascular)
system, CT of, Dec. 771–829
Carditis: Lyme, immune injury in, June 398–400
Catheter
balloon commissurotomy in mitral stenosis, Jan. 39–44
valvuloplasty of mitral valve, Jan. 43
Catheterization, cardiac
in aortic regurgitation
mild to moderate, Jan. 23
severe, Jan. 24–25
severe, with left ventricular dysfunction, Jan. 31–32
severe, with severe symptoms, Jan. 28
in aortic stenosis
mild, Jan. 10
severe, with left ventricular dysfunction and heart failure, Jan. 18
severe, with normal left ventricular function, Jan. 15
of endocarditis
aortic valve, Jan. 70–71
mitral valve, Jan. 74
mitral valve, with mitral valve replacement, Jan. 77
tricuspid valve, with valvectomy, Jan. 84
of mitral regurgitation
mild, Jan. 52
mild, with mitral valve prolapse, Jan. 67
severe asymptomatic, Jan. 53
severe, with coronary artery disease, Jan. 64–65
severe, with left ventricular dysfunction, Jan. 61
severe symptomatic, Jan. 58
in mitral stenosis
moderate to severe, Jan. 35–36
severe, with commissurotomy, Jan. 41–42
severe, with mitral valve replacement, Jan. 46
in mitral valve prolapse, May 346
routine, after myocardial infarction, Nov. 753–758
C-11 acetate: for myocardial function assessment, July 519–520
Cell(s)
mast, mediators of immediate hypersensitivity released from, June 384
-mediated
hypersensitivity and immune injury, June 388–389
rejection of heart transplant, acute, June 420–424
Chest
pain (*see* Pain, chest)
radiography (*see* Radiography, chest)
trauma, CT of, Dec. 824

Cholesterol lowering: mortality after, Sept. 637
Cineangiography
with exercise, in aortic regurgitation, Jan. 22
of mitral regurgitation
severe, Jan. 61
severe, with coronary artery disease, Jan. 64
of ventricle, left, Jan. 65
of ventricular ejection fraction, left, Dec. 785
Cine-NMR: of ventricle, right, Oct. 686–687
Cineventriculography: biplane, of right ventricle, Oct. 679–680
Coarctation of aorta
CT of, Dec. 815
residual postoperative, MRI in, Mar. 162
Cocaine, Feb. 95–123
angina due to, ECG in, Feb. 98
aortic rupture due to, Feb. 109
arrhythmia due to, Feb. 115–119
clinical observations, Feb. 115–117
experimental observations, Feb. 117–119
blood pressure after, Feb. 100
cardiovascular complications of, Feb. 95–123
conduction disturbances due to, Feb. 115–119
clinical observations, Feb. 115–117
experimental observations, Feb. 117–119
coronary artery spasm due to, Feb. 101
ECG after, Feb. 116
echocardiography after, Feb. 113
endocarditis due to, infective, Feb. 109
heart rate after, Feb. 100
myocardial dysfunction due to, nonischemic, Feb. 109–115
clinical observations, Feb. 111–115
experimental observations, Feb. 114–115
pathologic observations, Feb. 110–111
myocardial infarction due to, acute, Feb. 96–108
clinical observations, Feb. 96–99
experimental observations, Feb. 103–108
pathologic observations, Feb. 99–103
myocarditis due to, Feb. 111
pharmacology, Feb. 95–96
pneumopericardium due to, Feb. 109, 110
unresolved issues, Feb. 119–120
vasoconstriction due to (in rabbit), Feb. 104
ventricular tachycardia and fibrillation after, Feb. 116
Wolff-Parkinson-White syndrome after, Feb. 117
Commissurotomy: catheter balloon, in mitral stenosis, Jan. 39–44
Computed tomography, Dec. 771–829
of aorta, thoracic, Dec. 792, 810–816
of aortic aneurysms, Dec. 810–812
of aortic coarctation, Dec. 815
of aortic congenital lesions, Dec. 815
of aortic dissection, Dec. 812–815
of aortic dissection, acute, Dec. 824
of aortic stenosis, Dec. 807
of bypass, Dec. 799–805
aortocoronary, Dec. 777
coronary saphenous vein, Dec. 801
occluded and calcified, Dec. 802
occluded stump, Dec. 804
of cardiovascular system, Dec. 771–829
of chest trauma, Dec. 824
contrast media for, Dec. 778–780
conventional vs. ultrafast, Dec. 773–778

of coronary arteries, native, Dec. 795–797
of coronary artery anatomy, Dec. 790–791
of coronary calcification, Dec. 795
of diastolic function, Dec. 788–789
of Ebstein's anomaly, Dec. 821
in emergencies
cardiac, Dec. 823–825
pericardial, Dec. 823
end-diastolic, Dec. 782–785
of endocarditis, bacterial, Dec. 810
end-systolic, Dec. 782–785
of heart
disease, congenital, Dec. 820–823
disease, congenital, in adults, Dec. 822–823
disease, ischemic, Dec. 792–805
disease, valvular, Dec. 805–810
function, Dec. 780–792
output, Dec. 786
perfusion, Dec. 780–792
structure, Dec. 780–792
of intracardiac masses, Dec. 818–820
of mitral regurgitation, Dec. 808
of mitral stenosis, Dec. 808
of mycotic aneurysms, Dec. 812
of myocardial infarction, Dec. 797–799
acute, Dec. 824
of myocardial mass, Dec. 781–782
of myocardial perfusion, Dec. 791–792
of pericardial disease, Dec. 816–817
of pericardial effusion, Dec. 816–817
principles of, general, Dec. 772–773
of septal defects, atrial and ventricular, Dec. 822
of shunts, Dec. 821–822
of stroke volumes, Dec. 782–785
of tricuspid regurgitation, Dec. 809–810
ultrafast
artifacts, Dec. 778
breath holding and, Dec. 777–778
of heart rhythms, irregular, Dec. 778
limitations, persisting, Dec. 777–778
scanner, diagrammatic depiction, Dec. 775
strengths of, Dec. 776–777
of ventricular ejection fraction, left, Dec. 785
vs. conventional, Dec. 773–778
of valve, prosthetic, Dec. 808–809
of ventricular aneurysms, left, Dec. 794–795
of ventricular ejection fraction
left, Dec. 782–785
right, Dec. 789–790
of ventricular function, left regional, Dec. 786–788
of ventricular volumes, right, Dec. 789–790
Conduction disturbances due to cocaine (*see* Cocaine, conduction disturbances due to)
Connective tissue: in origin of cardiovascular disease, May 330
Contrast media
for blood pool enhancement, Dec. 781
for CT, Dec. 778–780
Coronary
angioplasty (*see* Angioplasty, coronary)
arteriography in Kawasaki disease, June 394
artery
anatomy, CT of, Dec. 790–791
bypass patency, MRI of, Mar. 195
CT of, Dec. 795–797
disease detection, July 452–460
disease detection with scintigraphy, thallium-201, July 455
disease detection with scintigraphy, thallium-201, exercise SPECT, July 457

Coronary *(cont.)*
artery *(cont.)*
disease detection with scintigraphy, thallium-201, pharmacologic stress, July 505–507
disease detection in totally asymptomatic patients, July 453–455
disease and heart transplant, Apr. 288
disease, left main, July 472
disease with mitral regurgitation, severe, Jan. 63–66
disease, multivessel, July 464
disease, myocardial perfusion imaging in, advantages of, July 462
disease, scintigraphy in, thallium-201, July 465
disease, SPECT in, thallium-201, July 477
disease, three-vessel, July 472
disease, treadmill stress test in, July 462
embolization, echocardiography of (in dog), Oct. 689
occlusion, Feb. 99
proximal mid-right, visualization of, Dec. 790
spasm due to cocaine, Feb. 101
atherosclerosis acceleration after heart transplant, June 424–427
blood flow in transplanted heart, Apr. 285
bypass (*see* Bypass, coronary)
calcification, CT of, Dec. 795
revascularization, assessment with nuclear cardiology techniques, July 475–483
saphenous vein bypass, CT of, Dec. 801
Cox regression analysis, July 467
Cytotoxicity: antibody-dependent, and immune injury, June 385

D

Dacron graft: for left ventricular wound, Aug. 555
Death
(*See also* Mortality)
from penetrating trauma, Aug. 544
prior to heart transplant, risk for, Apr. 244–250
sudden (*see* Sudden death)
Diastolic
end-diastolic (*see* End-diastolic)
function, CT of, Dec. 788–789
Digitalis
mortality after, Sept. 633
after myocardial infarction, Sept. 632–633
recommendations, Sept. 633
Diltiazem, Sept. 615
after myocardial infarction, Sept. 614
Dipyridamole
chest pain after, July 511–512
physiologic effects, July 504–505
side effects of, July 510–511
ST-segment depression after, July 511–512
thallium-201, July 506
scintigraphy, limitations of, July 512
scintigraphy after uncompleted myocardial infarction, July 510
Diuretics, Sept. 596
Doppler, continuous-wave, Jan. 11, 15, 19, 23, 49, 58
of mitral valve, Jan. 37
Dyspnea: in mitral valve prolapse syndrome, May 360

E

Ebstein's anomaly: CT of, Dec. 821
Echo imaging
gradient-refocused, Mar. 141–142, 144–145
normal exam, Mar. 149
spin-echo imaging, Mar. 140–141, 142–144
normal exam, Mar. 148–149
Echocardiography
in aortic regurgitation
mild to moderate, Jan. 22

severe, Jan. 24
severe, with left ventricular dysfunction, Jan. 31
severe, with severe symptoms, Jan. 28
in aortic stenosis
mild, Jan. 9–10
severe, with left ventricular dysfunction and heart failure, Jan. 17–18
severe, with normal left ventricular function, Jan. 14
of endocarditis
aortic valve, Jan. 69–70
mitral valve, Jan. 74
mitral valve, with mitral valve replacement, Jan. 77
tricuspid valve, Jan. 81
tricuspid valve, with valvectomy, Jan. 84
of mitral regurgitation
mild, Jan. 52
mild, with mitral valve prolapse, Jan. 66–67
severe asymptomatic, Jan. 53
severe, with coronary artery disease, Jan. 64
severe, with left ventricular dysfunction, Jan. 61
severe symptomatic, Jan. 58
in mitral stenosis
moderate to severe, Jan. 35
severe, cardiac catheterization not necessary, Jan. 48
severe, with commissurotomy, Jan. 41
severe, with mitral valve replacement, Jan. 45–46
in mitral valve prolapse, May 343–346
M-mode, Jan. 26, 36
in mitral stenosis, Oct. 681
still-frame, after coronary artery embolization (in dog), Oct. 689
2-D, Jan. 27, 30, 42, 47, 50, 52, 56, 57, 59, 62
after cocaine, Feb. 113
in endocarditis, aortic valve, Jan. 71
in endocarditis of mitral valve, Jan. 75
in endocarditis of mitral valve with mitral valve replacement, Jan. 78, 79
in endocarditis of tricuspid valve, Jan. 82
in endocarditis of tricuspid valve with valvectomy, Jan. 86
in mitral regurgitation with mitral valve prolapse, Jan. 67
of right ventricular overload, Oct. 682
of transplanted heart, Apr. 273, 282
of ventricle, right, Oct. 680–683
Electrocardiography
of angina due to cocaine, Feb. 98
in aortic regurgitation
mild to moderate, Jan. 22
severe, Jan. 24
severe, with left ventricular dysfunction, Jan. 31
severe, with severe symptoms, Jan. 28
in aortic stenosis
with left ventricular dysfunction and heart failure, Jan. 17
mild, Jan. 9
severe, with normal left ventricular function, Jan. 14
of atrial fibrillation, Jan. 45
after automobile accident, Aug. 566
after cocaine, Feb. 116
in Wolff-Parkinson-White syndrome, Feb. 117
of endocarditis
aortic valve, Jan. 69
mitral valve, Jan. 74
mitral valve, with mitral valve replacement, Jan. 77
tricuspid valve, Jan. 80
tricuspid valve, with valvectomy, Jan. 84
in heart injuries, penetrating, postoperative, Aug. 556
in mitral regurgitation
mild, Jan. 52
mild, with mitral valve prolapse, Jan. 66

Electrocardiography *(cont.)*
in mitral regurgitation *(cont.)*
severe asymptomatic, Jan. 53
severe, with coronary artery disease, Jan. 63
severe, with left ventricular dysfunction, Jan. 61
severe symptomatic, Jan. 57
in mitral stenosis
moderate to severe, Jan. 34, 35
severe, cardiac catheterization not necessary, Jan. 48
severe, with commissurotomy, Jan. 40
severe, with mitral valve replacement, Jan. 44
in mitral valve prolapse, May 343
after Q wave infarction, Nov. 730
signal-averaged after myocardial infarction, Nov. 736
of ventricle, right, Oct. 664–665, 669, 677
Electrophysiologic testing: in mitral valve prolapse, May 346–347
Electrophysiology: of transplanted heart, Apr. 285–286
Embolic events: in heart failure, Apr. 249–250
Embolism
bullet, Aug. 558–559
myocardial infarction and, Sept. 624
septic, Jan. 85
Embolization: of coronary artery, echocardiography of (in dog), Oct. 689
Emergencies
cardiac, CT in, Dec. 823–825
pericardial, CT of, Dec. 823
Enalapril: in heart failure, chronic, Sept. 635
Encainide: survival after, Sept. 630
End-diastolic
CT of, Dec. 782–785
paired images, Dec. 783
"slice" volumes, Dec. 783
"stack of coins" at, Dec. 784
Endocarditis
aortic valve, Jan. 69–74
cardiac catheterization, Jan. 70–71
ECG in, Jan. 69
echocardiography, Jan. 69–70
follow-up, Jan. 71–72
history, Jan. 69
laboratory data, Jan. 69
physical examination, Jan. 69
radiography of, chest, Jan. 69
bacterial, CT of, Dec. 810
infective, due to cocaine, Feb. 109
mitral valve, Jan. 74–76
cardiac catheterization, Jan. 74
ECG in, Jan. 74
echocardiography of, Jan. 74
follow-up, Jan. 74–75
history, Jan. 74
with mitral valve replacement *(see below)*
physical examination, Jan. 74
radiography of, chest, Jan. 74
treadmill stress test in, Jan. 74
mitral valve, with mitral valve replacement, Jan. 76–80
cardiac catheterization, Jan. 77
ECG in, Jan. 77
echocardiography, Jan. 77
follow-up, Jan. 78
history, Jan. 76–77
laboratory data, Jan. 77
physical examination, Jan. 77
radiography of, chest, Jan. 77
tricuspid valve, Jan. 80–83
ECG in, Jan. 80
echocardiography, Jan. 81
history, Jan. 80
hospital course, Jan. 81–82
laboratory data, Jan. 80
physical examination, Jan. 80
radiography of, chest, Jan. 80
tricuspid valve, with valvectomy, Jan. 83–85
cardiac catheterization, Jan. 84
ECG in, Jan. 84
echocardiography, Jan. 84
follow-up, Jan. 84
history, Jan. 83–84
laboratory data, Jan. 84
physical examination, Jan. 84
radiography of, chest, Jan. 84
Endomyocardial biopsy (*see* Biopsy, endomyocardial)

End-systolic
CT of, Dec. 782–785
paired images, Dec. 783
"slice" volumes from, Dec. 783
"stack of coins" at, Dec. 784
Epinephrine: excretion in mitral valve prolapse syndrome, May 348
Exercise
angiography, radionuclide, July 471–475
with cineangiography, in aortic regurgitation, Jan. 22
evaluation after myocardial infarction, Nov. 753
intolerance in mitral valve prolapse syndrome, May 359–360
oxygen consumption during, in left ventricular failure, Oct. 702
response in transplanted heart, Apr. 283–285
scintigraphy
in coronary artery disease detection, July 457
for prognostication in myocardial infarction, July 494–500
stress test (*see* Treadmill stress test)

F

Fatigue: in mitral valve prolapse syndrome, May 359
Fever: rheumatic, immune injury in, June 403–406
Fibrillation
atrial, ECG of, Jan. 45
ventricular, after cocaine, Feb. 116
Flecainide: survival after, Sept. 630
Floppy mitral valve (*see* Mitral valve, floppy)
Fluorine-18 metaraminol: for sympathetic nerve assessment, July 520–521
Fungal infections: after heart transplant, Apr. 279

G

Graft
bypass (*see* Bypass)
Dacron, for left ventricular wound, Aug. 555
Great vessel pathology: MRI of, Mar. 192–193

H

Heart
(*See also* Cardiovascular)
in AIDS, June 389–391
arrest during heart failure evaluation, Apr. 249
catheterization (*see* Catheterization, cardiac)
contusion, Aug. 560
diagnosis algorithm, Aug. 565
CT of, Dec. 771–829
disease
congenital, Dec. 820–823
congenital, CT of, in adults, Dec. 822–823
congenital, MRI in (*see* Magnetic resonance imaging in heart disease, congenital)
ischemic, CT of, Dec. 792–805
ischemic, MRI in, Mar. 196–199
ischemic, spectroscopy in, MR, Mar. 203–204
traumatic, Aug. 543–582
valvular, Jan. 7–88
valvular, CT of, Dec. 805–810
valvular, decision making steps in, Jan. 8
valvular, MRI in, Mar. 187–189
emergencies, CT in, Dec. 823–825
events after myocardial infarction, Nov. 734
cumulative probability of, Nov. 743
failure, Apr. 223–305
advanced, stroke volume in, Apr. 232
advanced, treatment, tailored, Apr. 231–236
advanced, treatment, tailored, early stability with, criteria for, Apr. 236
with aortic stenosis, Jan. 17–22
atrial overload in, Apr. 235
chronic, enalapril in, Sept. 635
compensation, Apr. 226–229

Heart *(cont.)*
failure *(cont.)*
congestive, beta blockers in, Sept. 606
decompensation, Apr. 226–229
embolic events in, Apr. 249–250
etiology, Apr. 225–226
evaluation, heart arrest during, Apr. 249
functional evaluation, Apr. 229–230
improvement without transplant, potential for, Apr. 230–231
mortality in, Sept. 613
potassium balance in, Apr. 250
stable, medical therapy for, Apr. 240
sudden death in, newer concepts, Apr. 248
treatment, progress in, Apr. 223–225
function, CT of, Dec. 780–792
index in mitral valve prolapse syndrome, May 355
injuries, blunt, lesions from, Aug. 560
injuries, iatrogenic, Aug. 574–576
injuries, immune, heart as target organ, June 383–442
injuries, nonpenetrating, Aug. 557–569
clinical manifestations, Aug. 561–564
diagnosis, Aug. 564–567
pathophysiology, Aug. 560–561
treatment, Aug. 568–569
injuries, penetrating, Aug. 543–557
diagnosis, Aug. 547–549
diagnosis, algorithm for, Aug. 550
ECG, postoperative, Aug. 556
hemodynamic findings in, Aug. 547
hemodynamic status at admission, Aug. 548
initial clinical presentation, Aug. 546
management, algorithm for, Aug. 550
mortality, Aug. 556
multiple, sites of, Aug. 545
pathophysiology, Aug. 546–547
sites of, Aug. 545
submammary incision, Aug. 553
surgical repair, Aug. 553–557
treatment, Aug. 549–557
treatment, initial, response to, Aug. 552
treatment results, Aug. 556
intracardiac masses, CT of, Dec. 818–820
masses, MRI of (*see* Magnetic resonance imaging of heart masses)
missiles in, Aug. 557
output, CT of, Dec. 786
perfusion, CT of, Dec. 780–792
rate after cocaine, Feb. 100
rhythms, irregular, CT of, Dec. 778
rupture, Aug. 569–572
clinical manifestations, Aug. 570–571
diagnosis, Aug. 571–572
treatment, Aug. 572
structure, CT of, Dec. 780–792
transplant *(see below)*
tumors, MRI of, Mar. 171–172
wounds (*see* injuries *above*)
Heart transplant, Apr. 223–305
atherosclerosis acceleration after, Apr. 286–290
coronary, June 424–427
cardiologists in, general, vital role of, Apr. 293–294
cardiologists for, working groups, listing of, Apr. 245
contraindications, Apr. 241–244
coronary artery disease and, Apr. 288
death prior to, risk, Apr. 244–250
donor(s)
limited, priority for, Apr. 257–260
management, Apr. 260–261
-recipient matching, Apr. 261–264
selection, Apr. 260–261

echocardiography of transplanted heart, Apr. 273
immune injury and, June 418–427
immunology, basic, June 418–419
immunosuppression in, Apr. 267–270
indications, Apr. 236–241
infections after, Apr. 276–280
bacterial, Apr. 277
fungal, Apr. 279
protozoa, Apr. 279–280
viral, Apr. 277–279
inotropic agents in, IV, Apr. 250–252
life after, Apr. 290–294
beyond first year, Apr. 292–293
first year, Apr. 290–292
lymphocytes in, Apr. 272
patients referred for
ejection fraction in, Apr. 227
evaluation of, Apr. 225–231
postoperative period, early, Apr. 264–267
potential candidates, patients discharged as, Apr. 234
recipient-donor matching, Apr. 261–264
rejection, Apr. 270–276
cell-mediated, acute, June 420–424
chronic, June 424–427
hyperacute, and immune injury, June 419
lymphocytes in, Apr. 271
moderate, Apr. 272
MRI in, Mar. 195–196
spectroscopy in, MR, Mar. 204–205
results in first year, Apr. 290
selection for, Apr. 237
sudden death while waiting for transplant, Apr. 245–246
support for, Apr. 250–257
surgery, Apr. 264–267
survival
ejection fraction and, Apr. 239
improving, Apr. 224
improving with medical therapy, Apr. 238
theoretical, shoulder curve of, Apr. 258
survivors, functional capacity for, Apr. 240
transplanted heart
coronary blood flow in, Apr. 285
echocardiography of, 2-D, Apr. 282
electrophysiology, Apr. 285–286
endomyocardial biopsy in, June 422
function, Apr. 280–286
function, resting, Apr. 280–282
physiology, Apr. 280–286
response to exercise, Apr. 283–285
response to volume, Apr. 282–283
ventricular assist devices and, Apr. 252–257
ventricular tachyarrhythmia and, Apr. 246–248
waiting list jeopardy, Apr. 244–245
Hematoma: thrombosed, in pericardial space, Mar. 167
Holter monitoring: in mitral valve prolapse, May 346
Hyperkalemia, Apr. 250
Hypersensitivity in immune injury (*see* Immune injury, hypersensitivity)
Hypertrophic cardiomyopathy: MRI of, Mar. 194
Hypertrophy: ventricular, right, ECG evidence for, Oct. 677

I

Iatrogenic injuries: to heart, Aug. 574–576
Imaging
echo (*see* Echo imaging)
infarct-avid, with myosin-specific antibody, July 500–504
magnetic resonance (*see* Magnetic resonance imaging)
myocardial perfusion (*see* Myocardium, perfusion imaging)
thallium-201 (*see* Thallium-201)

Immune
complex
disease, June 386–387
disease, systemic, June 387
-mediated conditions, clinical manifestations associated with, June 387
Immune injury
in carditis, Lyme, June 398–400
characterization of, June 383–389
heart as target organ of, June 383–442
heart transplant and, June 418–427
hypersensitivity, June 383–389
antibody-dependent cytotoxicity, June 385
cell-mediated, June 388–389
immediate, mediators of, June 384
in Kawasaki disease, June 391–398
in lupus erythematosus, systemic, June 412–415
in myocarditis, June 427–430
in polymyositis, June 406–409
in rheumatic fever, June 403–406
in rheumatoid arthritis, June 409–412
in sarcoidosis, June 415–418
in sclerosis, progressive systemic, June 400–403
sensitivity, June 388–389
types I through IV, June 383–388
Immunosuppression: in heart transplant, Apr. 267–270
Indium-111: for antimyosin scintigraphy, July 502
Infarction (*see* Myocardial infarction)
Inotropic agents: IV, in heart transplant, Apr. 250–252
Intracardiac masses: CT of, Dec. 818–820
Ischemia
anteroseptal, Jan. 29
event rate, July 503
myocardial (*see* Myocardium, ischemia)
myocardial infarction differentiated from, July 507–508
symptomatic, event-free survival rates in, July 474
Ischemic heart disease (*see* Heart disease, ischemic)
Isonitriles (*see* Technetium-99m isonitriles)
Isoproterenol, May 352

K

Kaplan-Meier probabilities: in Q wave myocardial infarction, Sept. 593
Kawasaki disease
angiography in, left ventricular, June 393
arteriography in, coronary, June 394
immune injury in, June 391–398

L

Lipid-lowering agents
after myocardial infarction, Sept. 636–639
recommendations, Sept. 639
Lung
(*See also* Pulmonary)
bullet embolism, Aug. 558
function tests in mitral stenosis, Jan. 36
thallium-201 uptake after myocardial infarction, July 489–490
Lupus erythematosus: systemic, immune injury in, June 412–415
Lyme carditis: immune injury in, June 398–400
Lymphocytes
activated, effective products of, June 388
in heart transplant, Apr. 272
rejection, Apr. 271
Lymphokines: activated, effective products of, June 388

M

Magnetic field: external, nuclei in, Mar. 135

Magnetic resonance: cine-MR of right ventricle, Oct. 686
Magnetic resonance imaging, Mar. 131–201
advantages, Mar. 151–155
of aorta
anomalies, congenital, Mar. 160–162
postoperative evaluation, Mar. 163–164
in aortic aneurysm, Mar. 159–160
of aortic arch anomalies, congenital, Mar. 160–162
in aortic disease, Mar. 155–165
in aortic dissection, Mar. 156–159
of aortic pseudoaneurysm, Mar. 164
of atrial hematoma, Mar. 168
liquid, Mar. 168
of atrial melanoma, Mar. 174
of atrial septal defect, secundum, Mar. 177
of bronchogenic carcinoma, Mar. 193
in cardiomyopathy, Mar. 193–195
hypertrophic, Mar. 194
cardiovascular, Mar. 131–201
indications for, summary of, Mar. 199–201
techniques, overview of, Mar. 131
of coarctation, residual postoperative, Mar. 162
construction of image, Mar. 137–140
contrast, image, Mar. 140–142
effect of flow on, Mar. 142–145
of coronary artery bypass patency, Mar. 195
disadvantages, Mar. 151–155
gradient refocused echo imaging, Mar. 141–142, 144–145
normal exam, Mar. 149
of great vessel pathology, Mar. 192–193
in heart disease, congenital, Mar. 173–187
complex congenital lesions, Mar. 179–187
complex relationships, classification, Mar. 182–184
complex, summary of role of MRI in, Mar. 184–185
postoperative evaluation, Mar. 185–187
postoperative, summary of role of MRI in, Mar. 187
simple congenital lesions, Mar. 176–179
in heart disease, valvular, Mar. 187–189
of heart masses, Mar. 170–173
suspected, summary of role of MRI in assessment, Mar. 173
technique, Mar. 172–173
tumors, Mar. 171–172
of heart transplant rejection, Mar. 195–196
history of, Mar. 132–155
of mitral regurgitation, Mar. 188
of myocardial infarction, Mar. 198–199
acute (in dog), Mar. 197
nuclei of interest, Mar. 132–135
characteristics of, Mar. 133
nuclei in magnetic field, Mar. 135
of pericardial congenital absence, left, Mar. 169–170
of pericardial constriction, Mar. 167–169
of pericardial disease, Mar. 165–170
of pericardial effusion, Mar. 165–167
of pericardial space with thrombosed hematoma, Mar. 167
of pericardial tumors, Mar. 170
of pericarditis, constrictive, Mar. 169
phase-encoding gradient, Mar. 138
of pulmonary arteries, Mar. 181
radiofrequency excitation pulse timing, Mar. 138
relaxation times, Mar. 136–137
safety considerations, Mar. 147–151
signal production, Mar. 135–136
in specific disease processes, Mar. 155–201
techniques, Mar. 145–147

Magnetic resonance imaging *(cont.)*
theory, Mar. 132–145
of thrombus, Mar. 172
of tricuspid atresia, Mar. 182
of vena cava, persistent, Mar. 180
of venous connections, anomalous, Mar. 179–181
in ventricular function analysis, Mar. 190–192
of ventricular trabeculation, right, Mar. 184
Magnetic resonance spectroscopy (*see* Spectroscopy, magnetic resonance)
Mast cells: mediators of immediate hypersensitivity released from, June 384
Melanoma: atrial, MRI of, Mar. 174
Metaraminol: fluorine-18, for sympathetic nerve assessment, July 520–521
Missiles: in heart, Aug. 557
Mitral
endocarditis (*see* Endocarditis, mitral valve)
regurgitation, CT of, Dec. 808
regurgitation, floppy mitral valve in, May 318–330
regurgitation, mapping technique for, Jan. 20
regurgitation, mild, Jan. 51–53
cardiac catheterization, Jan. 52
ECG in, Jan. 52
echocardiography of, Jan. 52
follow-up, Jan. 52
history, Jan. 51
physical examination, Jan. 51
radiography of, chest, Jan. 52
regurgitation, mild, with mitral valve prolapse, Jan. 66–68
cardiac catheterization, Jan. 67
ECG in, Jan. 66
echocardiography, Jan. 66–67
follow-up, Jan. 67–68
history, Jan. 66
physical examination, Jan. 66
radiography of, chest, Jan. 66
regurgitation, MRI of, Mar. 188
regurgitation, severe asymptomatic, Jan. 53–56
cardiac catheterization, Jan. 53
ECG in, Jan. 53
echocardiography, Jan. 53
follow-up, Jan. 54
history, Jan. 53
physical examination, Jan. 53
radiography of, chest, Jan. 53
treadmill stress test, Jan. 53
regurgitation, severe, with coronary artery disease, Jan. 63–66
cardiac catheterization, Jan. 64–65
cineangiography, Jan. 64
ECG in, Jan. 63
echocardiography, Jan. 64
follow-up, Jan. 65
history, Jan. 63
physical examination, Jan. 63
radiography of, chest, Jan. 63
regurgitation, severe, with left ventricular dysfunction, Jan. 61–63
cardiac catheterization, Jan. 61
cineangiography, Jan. 61
ECG in, Jan. 61
echocardiography, Jan. 61
follow-up, Jan. 61–62
history, Jan. 61
physical examination, Jan. 61
radiography of, chest, Jan. 61
regurgitation, severe symptomatic, Jan. 56–60
cardiac catheterization, Jan. 58
ECG in, Jan. 57
echocardiography, Jan. 58
follow-up, Jan. 58–59
history, Jan. 56–57
physical examination, Jan. 57
radiography of, chest, Jan. 57
St. Jude valve, Dec. 810
stenosis (*see* Stenosis, mitral)
valve, floppy, May 318–330
clinical implications, May 327–329
clinicians, May 324–325
complications, May 327–329
definition, clinical, May 329–330

5-century odyssey, May 318–321
histopathology, May 327
in mitral regurgitation, May 318–330
in mitral valve prolapse, May 318–330
morphologic beginnings, May 322–323
morphologic characteristics, graphic presentation, May 328
as pathologic entity, May 325–326
role in cardiovascular disease of connective tissue origin, May 330
syndrome, May 323–324
valve prolapse, May 315–375
anatomic, May 316–317
auscultatory mimics of, May 337
auscultatory patterns, May 339
cardiac catheterization in, May 346
classification, clinician, May 316–318
conditions associated with, May 333
diagnostic evaluation, May 343–347
dynamic spectrum, May 318
ECG in, May 343
echocardiography in, May 343–346
electrophysiologic testing in, May 346–347
evaluation, clinical, May 331–347
examination, cardiac, May 335–336
examination, general, May 333–335
examination, physical, May 333
exercise testing in, May 346
floppy mitral valve in, May 318–330
high risk patient, identification of, May 365–366
history, medical, May 331–333
Holter monitoring in, May 346
management, clinical, May 366–368
natural history, May 361–366
overview, May 315–316
postural auscultation in, May 336, 338
postural auscultatory changes, mechanisms of, May 341–342
postural auscultatory complex, May 337–341
progression, May 318
radiography of, chest, May 343
role in cardiovascular disease of connective tissue origin, May 330
severe, with mitral regurgitation, Jan. 66–68
severity and number of abnormalities, May 316
time in years, May 318
valve prolapse syndrome, May 347–361
adrenergic activity increase in, May 349–350
adrenergic stimulation in, hyperresponse to, May 350–351
arrhythmia in, May 359
atrial natriuretic factor in, May 354–355
autonomic dysfunction in, May 347–361
autonomic dysfunction in asymptomatic individuals, May 356
autonomic dysfunction related to symptoms, May 357
beta-adrenergic receptor abnormality in, May 351–352
cardiac index in, May 355
chest pain in, May 357–359
definition, May 317
dyspnea in, May 360
epinephrine excretion in, May 348
exercise intolerance in, May 359–360
fatigue in, May 359
intravascular volume in, low, May 352–354

Mitral *(cont.)*
valve prolapse syndrome *(cont.)*
neuropsychiatric symptoms, May 361
norepinephrine excretion in, May 348
palpitations in, May 359
parasympathetic abnormality in, May 355–356
pathogenesis, May 358
pathogenesis of common symptoms, May 357–361
postural phenomena, May 360–361
presyncope in, May 361
syncope in, May 361
valve replacement
in endocarditis of mitral valve, Jan. 76–80
in mitral stenosis, severe, Jan. 44–48
Monitoring: Holter, in mitral valve prolapse, May 346
Morbidity: effect of beta blockers on, Sept. 598–603
Mortality
(*See also* Death)
beta blockers and, Sept. 597, 602, 607
after cholesterol lowering, Sept. 637
after digitalis, Sept. 633
effect of beta blockers on, Sept. 598–603
in heart failure, Sept. 613
in heart injuries, penetrating, Aug. 556
in myocardial infarction, Sept. 592, 594, 623
curves after discharge, Sept. 595
with nitrate therapy, Sept. 617
with propranolol, Sept. 600, 604
with timolol, Sept. 601
Murmur, May 363
Mycotic aneurysms: CT of, Dec. 812
Myocardial infarction
acute
cocaine causing (*see* Cocaine, myocardial infarction due to, acute)
CT of, Dec. 824
detection, July 483–485
localization, July 483–485
MRI in (in dog), Mar. 197
prognostication, July 487–489
prognostication, scintigraphy for, exercise thallium-201, July 494–501
sizing, July 485–487
technetium-99m isonitrile imaging in, July 517–519
thallium-201 imaging in, July 483–504
thrombolysis in, thallium-201 scintigraphy to assess, July 490–494
angiotensin-converting enzyme inhibitors after, Sept. 633–636
antiarrhythmic therapy after, Sept. 625–631
anticoagulant therapy after, Sept. 621–625
antiplatelet therapy after, Sept. 617–621
approaches to patients after, general, Nov. 727
aspirin after, results, Sept. 618
beta-adrenergic blockers in, Sept. 596–608
Bruce protocol stress test after, Nov. 752
calcium channel blockers after, Sept. 608–616
cardiac events after, Nov. 734
catheterization after, cardiac, routine, Nov. 753–758
convalescent, classes, Nov. 758
CT of, Dec. 797–799
digitalis after, Sept. 632–633
diltiazem after, Sept. 614
ECG after, signal-averaged, Nov. 736
embolism and, Sept. 624
evolving, early, Nov. 756
exercise evaluation after, Nov. 753
exercise tests after, Nov. 739, 752
heart events after, cumulative probability of, Nov. 743
high risk patients, identification of three factors, Nov. 729

high-risk subsets, identification of, Nov. 728–737
hospital course after, early, Nov. 736–737
infarct-avid imaging with myosin-specific antibody, July 500–504
inferoposterior, Jan. 64
invasive testing after, Nov. 727–763
ischemia differentiated from, July 507–508
lipid-lowering agents after, Sept. 636–639
low risk patients, noninvasive evaluation, recommendations for, Nov. 744
lung thallium-201 uptake after, July 489–490
medical therapy after, Sept. 591–649
mortality in, Sept. 623
mortality curves after discharge, Sept. 595
mortality rate, Sept. 592, 594
MRI of, Mar. 198–199
myocardial ischemia after, Nov. 733
  detection of, Nov. 739–747
nifedipine after, Sept. 609–612
nitrate therapy after, Sept. 616–617
noninvasive testing after, Nov. 727–763
  for risk stratification, Nov. 737–753
non-Q-wave, scintigraphy in, July 499
Q wave
  ECG after, Nov. 730
  Kaplan-Meier probabilities in, Sept. 593
  scintigraphy in, July 499
reinfarction, Sept. 601, 616, 624
risk stratification, Sept. 592–596
  by noninvasive testing, Nov. 737–753
  practical approach to, Nov. 749–753
  predischarge, July 490
smokers and, Sept. 603
streptokinase after, Sept. 620
stroke and, Sept. 624
testing after, noninvasive and invasive, Nov. 727–763
uncompleted, dipyridamole thallium-201 scintigraphy after, July 510
ventricular arrhythmia after, Sept. 628; Nov. 735–736
  detection of, Nov. 748–749
ventricular dysfunction after, left, Nov. 733–734
ventricular ejection fraction after, left, Nov. 732
ventricular performance impairment after, detection of, Nov. 747–748
ventricular, right, Oct. 688–693
ventricular wall motion index after, left, Nov. 732
verapamil after, Sept. 612–614
Myocarditis
active, endomyocardial biopsy in, June 428
due to cocaine, Feb. 111
immune injury in, June 427–430
Myocardium
blood flow (*see* Blood flow, myocardial)
clearance of technetium-99m sestamibi, July 514
dysfunction due to cocaine (*see* Cocaine, myocardial dysfunction due to)
function assessment with PET and C-11 acetate, July 519–520
infarction (*see* Myocardial infarction)
ischemia
  detection after myocardial infarction, Nov. 739–747
  detection with technetium-99m sestamibi, July 514–517
  events during episode of, sequence of, Nov. 741
  after myocardial infarction, Nov. 733
mass, CT of, Dec. 781–782
perfusion
  assessment with oxygen-15-labeled water, July 521

Myocardium *(cont.)*
perfusion *(cont.)*
assessment with technetium-99m sestamibi, July 519
CT of, Dec. 791–792
perfusion imaging, July 460–471
advantages in coronary artery disease, July 462
after angioplasty, July 475
after coronary bypass, July 475
with technetium-99m isonitriles, July 512–519
uptake of technetium-99m sestamibi, July 513–514
Myosin-specific antibody: for infarct-avid imaging, July 500–504
Myxoma: atrial, Dec. 819

N

Nerve: sympathetic, assessment with fluorine-18 metaraminol, July 520–521
Nifedipine
early administration, Sept. 609–611
late administration, Sept. 612
after myocardial infarction, Sept. 609–612
Nitrate therapy
mortality with, Sept. 617
after myocardial infarction, Sept. 616–617
Norcocaine: inducing vasoconstriction (in rabbit), Feb. 119
Norepinephrine: excretion in mitral valve prolapse syndrome, May 348
Novacor assist device, Apr. 254
Nuclear cardiology, July 451–535
future of, July 522–523
in prognostication, July 508–509
in risk stratification, July 508–509
techniques
in coronary revascularization assessment, July 475–483
current status of, July 451–535
prognostic applications, July 460–475
Nuclear magnetic resonance (*see* Magnetic resonance)

O

Oxygen consumption: during exercise in left ventricular failure, Oct. 702
Oxygen-15-labeled water: for myocardial perfusion assessment, July 521

P

Pain, chest
after dipyridamole, July 511–512
in mitral valve prolapse syndrome, May 357–359
scintigraphy in, thallium-201, July 455–460
Palpitations: in mitral valve prolapse syndrome, May 359
Parasympathetic abnormality: in mitral valve prolapse syndrome, May 355–356
Perfusion
CT of, Dec. 780–792
myocardial (*see* Myocardium, perfusion)
Pericardial
constriction, MRI of, Mar. 167–169
disease
CT of, Dec. 816–817
MRI of, Mar. 165–170
effusion
CT of, Dec. 816–817
MRI of, Mar. 165–167
emergencies, CT of, Dec. 823
injuries, Aug. 572–574
space, thrombosed hematoma in, Mar. 167
tumors, MRI of, Mar. 170
Pericardiocentesis, Aug. 551
Pericarditis: constrictive, MRI of, Mar. 169
Pericardium: left, congenital absence of, MRI of, Mar. 169–170

Pneumopericardium: due to cocaine, Feb. 109, 110
Polymyositis: immune injury in, June 406–409
Positron emission tomography, July 519–521
for myocardial function assessment, July 519–520
Potassium balance: in heart failure, Apr. 250
Presyncope: in mitral valve prolapse syndrome, May 361
Propranolol
mortality with, Sept. 600, 604
sudden death and, Sept. 604
survival with, Sept. 603
Prosthesis: valve, CT of, Dec. 808–809
Protozoa: infections after heart transplant, Apr. 279–280
Pseudoaneurysm: aortic, MRI of, Mar. 164
Pulmonary
(*See also* Lung)
arteries, MRI of, Mar. 181
vessels, redistribution, Jan. 35
wedge pressure in left ventricular failure, Oct. 702
Pulsus parvus et tardus, Jan. 16

Q

Q wave infarction (*see* Myocardial infarction, Q wave)

R

Radiography, chest
in aortic regurgitation
mild to moderate, Jan. 22
severe, Jan. 24
severe, with left ventricular dysfunction, Jan. 31
severe, with severe symptoms, Jan. 28
in aortic stenosis
mild, Jan. 9
severe, with left ventricular dysfunction and heart failure, Jan. 17
severe, with normal left ventricular function, Jan. 14
of cardiomegaly, Jan. 25, 32, 46, 70
borderline, Jan. 14
mild, Jan. 41, 55
in endocarditis
aortic valve, Jan. 69
mitral valve, Jan. 74
mitral valve, with mitral valve replacement, Jan. 77
tricuspid valve, Jan. 80
tricuspid valve, with valvectomy, Jan. 84
of mitral regurgitation
mild, Jan. 52
mild, with mitral valve prolapse, Jan. 66
severe asymptomatic, Jan. 53
severe, with coronary artery disease, Jan. 63
severe, with left ventricular dysfunction, Jan. 61
severe symptomatic, Jan. 57
in mitral stenosis
moderate to severe, Jan. 35
severe, cardiac catheterization not necessary, Jan. 48
severe, with commissurotomy, Jan. 41
severe, with mitral valve replacement, Jan. 44
in mitral valve prolapse, May 343
of ventricle, right, Oct. 675–677
Radionuclide angiography, July 482–483
of right ventricle, Oct. 683–686
Regurgitation
aortic (*see* Aortic regurgitation)
mitral (*see* Mitral regurgitation)
tricuspid, Jan. 83
CT of, Dec. 809–810
Reinfarction, Sept. 601, 616, 624
Revascularization: coronary, assessment with nuclear cardiology techniques, July 475–483
Rheumatic fever: immune injury in, June 403–406
Rheumatoid arthritis: immune injury in, June 409–412

Rhythms: irregular heart, CT of, Dec. 778
Rupture
aortic, due to cocaine, Feb. 109
of heart (*see* Heart rupture)

S

St. Jude valve: mitral, Dec. 810
Saphenous vein bypass: coronary, CT of, Dec. 801
Sarcoidosis
endomyocardial biopsy in, June 418
immune injury in, June 415–418
Scanner: for ultrafast CT, diagrammatic depiction, Dec. 775
Scintigraphy
antimyosin, July 502
in non-Q-wave myocardial infarction, July 499
in Q-wave myocardial infarction, July 499
thallium-201
adenosine, limitations of, July 512
in chest pain, July 455–460
in coronary artery disease, July 465
decision-making scheme, July 471
dipyridamole, limitations of, July 512
dipyridamole, after uncompleted myocardial infarction, July 510
exercise, for prognostication in myocardial infarction, July 494–500
exercise SPECT, in coronary artery disease detection, July 457
pharmacologic stress, July 504–512
pharmacologic stress, clinical applications, July 504–505
pharmacologic stress, in coronary artery disease, July 505–507
for thrombolysis assessment after myocardial infarction, July 490–494
variables, high-risk, July 463
Sclerosis: progressive systemic, immune injury in, June 400–403
Septal defect
atrial (*see* Atrial septal defect)
CT of, Dec. 822
Septic embolism, Jan. 85
Serum sickness, June 386
Sestamibi (*see* Technetium-99m sestamibi)
Shunt(s): CT of, Dec. 821–822
Simpson's rule, Mar. 191
Smokers: and myocardial infarction, Sept. 603
Spasm: of coronary artery due to cocaine, Feb. 101
SPECT
scintigraphy in coronary artery disease detection, July 457
thallium-201, July 477
in stenosis, July 458–459
Spectroscopy, magnetic resonance, cardiovascular, Mar. 201–205
in heart disease, ischemic, Mar. 203–204
in heart transplant, rejection, Mar. 204–205
overview of, Mar. 201–203
in specific disease states, Mar. 203–205
theory, Mar. 201–203
Spin-echo imaging, Mar. 140–141, 142–144
normal exam, Mar. 148–149
Stenosis, aortic
CT of, Dec. 807
mild, Jan. 8–10
cardiac catheterization, Jan. 10
echocardiography, Jan. 9–10
electrocardiography, Jan. 9
follow-up, Jan. 10
history, Jan. 9
physical examination, Jan. 9
severe, with left ventricular dysfunction and heart failure, Jan. 17–22
cardiac catheterization, Jan. 18

ECG in, Jan. 17
echocardiography, Jan. 17–18
follow-up, Jan. 18–21
history, Jan. 17
physical examination, Jan. 17
radiography, chest, Jan. 17
severe, with normal left ventricular function, Jan. 12–17
cardiac catheterization, Jan. 15
echocardiography, Jan. 14
electrocardiography, Jan. 14
follow-up, Jan. 15
history, Jan. 12
physical examination, Jan. 12–13
radiography, chest, Jan. 14
Stenosis, mitral
CT of, Dec. 808
echocardiography of, M-mode, Oct. 681
moderate to severe, Jan. 34–39
cardiac catheterization, Jan. 35–36
ECG, Jan. 34, 35
echocardiography, Jan. 35
follow-up, Jan. 36–38
history, Jan. 34
lung function tests in, Jan. 36
physical examination, Jan. 34–35
radiography of, chest, Jan. 35
severe, cardiac catheterization not necessary, Jan. 48–51
ECG in, Jan. 48
echocardiography, Jan. 48
follow-up, Jan. 49
history, Jan. 48
physical examination, Jan. 48
radiography of, chest, Jan. 48
severe, with commissurotomy, Jan. 39–44
cardiac catheterization, Jan. 41–42
ECG, Jan. 40
echocardiography, Jan. 41
follow-up, Jan. 42
history, Jan. 39
physical examination, Jan. 40
radiography of, chest, Jan. 41
treadmill stress test, Jan. 41
severe, with mitral valve replacement, Jan. 44–48
cardiac catheterization, Jan. 46
ECG in, Jan. 44
echocardiography, Jan. 45–46
follow-up, Jan. 46
history, Jan. 44
physical examination, Jan. 44
thickening, Dec. 809
Stenosis: severe, with mitral valve replacement radiography of, chest, Jan. 44
Streptokinase: after myocardial infarction, Sept. 620
Stress
scintigraphy, July 504–512
test
Bruce protocol, after myocardial infarction, Nov. 752
treadmill (*see* Treadmill stress test)
ventricular function and, in ischemic heart disease, Dec. 793–794
Stroke
myocardial infarction and, Sept. 624
volumes
CT of, Dec. 782–785
in heart failure, advanced, Apr. 232
ST-segment
depression after dipyridamole, July 511–512
elevation and thallium-201 imaging, July 495
Sudden death
arrhythmic, Sept. 631
after cocaine, Feb. 117
in heart failure, newer concepts, Apr. 248
propranolol and, Sept. 604
risk while waiting for heart transplant, Apr. 245–246
Sympathetic nerves: assessment with fluorine-18 metaraminol, July 520–521
Syncope: in mitral valve prolapse syndrome, May 361

Systolic, end-systolic (*see* End-systolic)

T

Tachyarrhythmia: ventricular, and heart transplant, Apr. 246–248
Tachycardia: ventricular, after cocaine, Feb. 116
Technetium-99m
  isonitriles
    background, July 512–513
    in myocardial infarction, acute, July 517–519
    myocardial perfusion imaging with, July 512–519
  sestamibi
    myocardial clearance of, July 514
    for myocardial ischemia detection, July 514–517
    myocardial uptake, July 513–514
    for perfusion and function simultaneous assessment, July 519
    after thrombolysis, July 518
Thallium-201
  defects, transient, July 466
  dipyridamole (*see* Dipyridamole, thallium-201)
  imaging
    in myocardial infarction, acute, July 483–504
    ST-segment elevation and, July 495
  lung uptake after myocardial infarction, July 489–490
  redistribution, late, July 476
  scintigraphy (*see* Scintigraphy, thallium-201)
  SPECT, July 477
    in stenosis, July 458–459
  treadmill stress test and, July 457
Thoracic (*see* Chest)
Thoratec pump, Apr. 255
Thrombolysis
  in myocardial infarction, acute, July 490–494
  technetium-99m sestamibi imaging after, July 518
Thrombosed hematoma: in pericardial space, Mar. 167
Thrombus
  in atrial appendage, Dec. 818
  MRI of, Mar. 172
Timolol: mortality with, Sept. 601
Tomography
  computed (*see* Computed tomography)
  positron emission, July 519–521
    for myocardial function assessment, July 519–520
Transplantation, heart (*see* Heart transplant)
Traumatic heart disease, Aug. 543–582
Treadmill stress test
  in aortic regurgitation
    mild to moderate, Jan. 22
    severe, Jan. 24
  in coronary artery disease, July 462
  decision-making algorithm for, July 454
  in endocarditis, mitral valve, Jan. 74
  in mitral regurgitation, severe asymptomatic, Jan. 53
  in mitral stenosis, severe, with commissurotomy, Jan. 41
  in mitral valve prolapse, May 346
    syndrome, May 359–360
Treadmill stress test
  after myocardial infarction, Nov. 739, 752
  thallium-201 and, July 457
Tricuspid
  atresia, MRI in, Mar. 182
  endocarditis (*see* Endocarditis, tricuspid valve)
  regurgitation, Jan. 83
    CT of, Dec. 809–810
Tumors
  heart, MRI of, Mar. 171–172
  pericardial, MRI of, Mar. 170

V

Valve
  aortic (*see* Aortic)

disease (*see* Heart disease, valvular)
mitral (*see* Mitral)
prosthetic, CT of, Dec. 808–809
St. Jude, mitral, Dec. 810
tricuspid (*see* Tricuspid)
Valvectomy: in endocarditis of tricuspid valve, Jan. 83–85
Valvuloplasty of mitral valve, Jan. 43
catheter balloon, Jan. 43
Vasoconstriction
due to cocaine (in rabbit), Feb. 104
norcocaine inducing (in rabbit), Feb. 119
Vein
connection anomalies, MRI of, Mar. 179–181
saphenous, bypass, coronary, CT of, Dec. 801
Vena cava: persistent, MRI of, Mar. 180
Ventricle
arrhythmia (*see* Arrhythmia, ventricular)
assist devices and heart transplant, Apr. 252–257
ejection fraction
heart failure survival and, Apr. 239
in referral for heart transplant, Apr. 227
fibrillation after cocaine, Feb. 116
function
analysis with MRI, Mar. 190–192
in ischemic heart disease, CT of, Dec. 792–805
left
aneurysms, CT of, Dec. 794–795
cineangiography of, Jan. 65
curves of active tension vs. sarcomere length, Oct. 662
dysfunction, with aortic regurgitation, severe, Jan. 31–33
dysfunction with aortic stenosis, Jan. 17–22
dysfunction with mitral regurgitation, severe, Jan. 61–63
dysfunction after myocardial infarction, Nov. 733–734
ejection fraction, Oct. 700
ejection fraction, cineangiography of, Dec. 785
ejection fraction, CT of, Dec. 782–785
ejection fraction, CT of, ultrafast, Dec. 785
ejection fraction after myocardial infarction, Nov. 732
end-diastolic volume index, May 354
failure, oxygen consumption during exercise in, Oct. 702
failure, pulmonary wedge pressure in, Oct. 702
failure, right ventricular pressure overload secondary to, Oct. 698–702
function, effect of beta blockers on, Sept. 605–606
function, global, in ischemic heart disease, Dec. 792–793
function, regional, CT of, Dec. 786–788
function, regional, in ischemic heart disease, Dec. 793
interaction with right ventricle, Oct. 669–674
pressure volume loops, Oct. 668
pressure volume loops (in dog), Oct. 687
short axis images, Oct. 671
Simpson's rule, Mar. 191
wall motion index after myocardial infarction, Nov. 732
wound, repair with Dacron graft, Aug. 555
performance impairment, detection after myocardial infarction, Nov. 747–748
premature beats, May 349
right (*see below*)
septal defect, CT of, Dec. 822
tachyarrhythmia and heart transplant, Apr. 246–248
tachycardia after cocaine, Feb. 116

Ventricle, right, Oct. 659–720
anatomy, Oct. 659–662
angiography of, radionuclide, Oct. 683–686
cine-MR of, Oct. 686–687
cineventriculography of, biplane, Oct. 679–680
contraction physiology, Oct. 663–674
curves of active tension vs. sarcomere length, Oct. 662
dysfunction, ECG evidence for, Oct. 677
echocardiography of, Oct. 680–683
ejection fraction, Oct. 700
CT of, Dec. 789–790
electrocardiography of, Oct. 664–665, 669, 677
evaluation, clinical, Oct. 674–687
function, clinical importance of, Oct. 687–706
hypertrophy, ECG evidence for, Oct. 677
interaction with left ventricle, Oct. 669–674
myocardial infarction, Oct. 688–693
overload
echocardiography of, two-dimensional, Oct. 682
pressure, acute and chronic, Oct. 693–698
secondary to left ventricular failure, Oct. 698–702
volume, Oct. 702–706
physical examination of, Oct. 674–675
pressure-volume loops, Oct. 688, 673
(in dog), Oct. 687
pump performance evaluation, Oct. 663
short axis images, Oct. 671
trabeculation, MRI of, Mar. 184
volumes, CT of, Dec. 789–790
Verapamil: after myocardial infarction, Sept. 612–614
Vessels
(*See also* Cardiovascular)
CT of, Dec. 771–829
great, pathology, MRI of, Mar. 192–193
Virus(es): infection after heart transplant, Apr. 277–279

W

Water: oxygen-15-labeled, for myocardial perfusion assessment, July 521
Wolff-Parkinson-White syndrome: after cocaine, Feb. 117

X

X-ray (*see* Radiography)
computed tomography (*see* Computed tomography)